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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,989	10/24/2003	Shen Chih-Chiang	251210-1440	1733

24504 7590 02/14/2008  
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EXAMINER
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NGUYEN BA, HOANG VU A

ART UNIT	PAPER NUMBER
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2623

MAIL DATE	DELIVERY MODE
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02/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/692,989	<b>Applicant(s)</b> CHIH-CHIANG ET AL.	
	<b>Examiner</b> Hoang-Vu A. Nguyen-Ba	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the amendment filed November 23, 2007.
2. Claims 1-10 remain pending. Claims 1 and 8 are independent claims.

### ***Response to Amendments***

3. Per Applicant's request, Claims 1, 2, 3, 4, 5 and 8 have been amended.
4. The objection to the drawings is withdrawn in view of Applicant's amendments to these drawings to address the identified informalities.
5. The objection to the Specification is withdrawn in view of Applicant's amendments to correct the identified informalities.

### ***Response to Arguments***

6. The rejection of Claims 1-5 and 7 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is maintained because it is not clearly understood how the amendments to these claims direct the subject matter of invention in these claims to statutory subject matter since the features claimed are those performed by an apparatus that is a production software (see claim 7).
7. Applicant's arguments in the Remark section of the amendment have been fully considered but are moot in view of the new ground(s) of rejection presented herein.

### ***Claim Rejections – 35 USC § 101***

8. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the condition and requirements of this title.

9. Claims 1-5 and 7 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 recites an apparatus where all elements (e.g., virtual playback unit, multitasking unit, and data stream buffer unit) would reasonably be interpreted by one of ordinary skill in light of the disclosure as software (see p. 5, lines 12-14), such that the apparatus is software, per se (also see Claim 7).

The claimed components of the apparatus are merely software components, i.e., computer programs per se. Such claimed matter, which is functional descriptive material per se, is not statutory because it is not a physical “thing” nor a statutory process as there are no “acts” being performed. Such claimed computer program does not define any structural and functional interrelationships between the computer program and other claimed aspects of the invention which permit the computer’s program’s functionality to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer, the program itself is not a process, without the computer-readable medium needed to realize the computer’s functionality. In contrast, a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program’s functionality to be realized, and is thus mandatory. *Warmerdam*, 33 F.2d at 1361, 31 USPQ 2d at 1760. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 178). See MPEP §2106 (IV)(B)(1)(a).

Claims 2-5 and 7, which depend from Claim 1 and which do not appear to limit the claimed subject matter to a tangible computer-readable storage medium are also rejected under 35 U.S.C. § 101 for the same reason.

***Claim Objection***

10. Claim 1 is objected to because of the following informalities:

Claim 1 recites the limitation “the standard multimedia player” at line 3. This limitation lacks proper antecedent basis.

Appropriate correction is required.

***Claim Rejections – 35 USC § 103***

11. The following is a quotation of the 35 U.S.C. § 103(a) which form the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art (APA) of pages 1-2 and FIGs. 1-2 of Applicant’s background in view of U.S. Patent No. 5,854,873 to Mori et al. (“Mori”).

***Claim 1***

APA discloses at least an *apparatus for multimedia data stream production, comprising:*  
*a playback unit providing a playback result* (see at least APA, p. 1, line16-19).

APA does not specifically disclose that the playback unit is *virtual, simulating the standard multimedia player*.

However, it was known at the time of the invention that merely providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish over the prior art, *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). Likewise, using software (e.g., *virtual*) means to replace

hardware means to accomplish the same result is not sufficient to distinguish over the prior art. For example, simply playing back a multimedia data stream using a multimedia player software or virtual unit gives you just what you would expect from a multimedia computer system described at page 1 of Applicant's background. In other words, there is no enhancement found in the claimed *virtual playback unit, simulating a standard multimedia player*. The end result is the same as compared to the multimedia computer system. A multimedia playback software (or virtual) unit can simply perform the same function(s) more cost-effectively and without risks of hardware failure.

APA further discloses:

*a multitasking unit, producing and integrating video data packs or audio data packs into the multimedia data stream according to the playback result from the virtual playback unit* (see at least APA, page 1, line 20 – page 2, line 23);

APA does not specifically disclose:

*a data stream buffer unit, storing the multimedia data stream produced by the multitasking media.*

However, in an analogous art, Mori teaches a method and apparatus for system encoding and storing bitstreams for use in an authoring system (see at least 1:9-19), wherein a VOB (Video Object) buffer 1000 temporarily stores the video objects produced by the system encoder 900 (see at least FIGs. 2 and 25).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Mori with the teachings of APA because the combination would provide an effective authoring system for controlling a multimedia data bitstream to better address advanced user requirements (Mori, 2:37-41).

## Claim 2

The rejection of base claim 1 is incorporated. The combination APA-Mori further discloses *wherein the virtual playback unit further comprises:*

*a decoding unit, decoding the multimedia data stream from the data stream buffer unit and retrieving the decoded video data packs and the decoded audio data packs (see at least APA, FIG. 2; it should be noted that after adding customized data using Mori's scenario editor, the multimedia bitstream is stored on disk and can be played back using APA playback unit);*

*a video data register unit, registering the decoded video data packs sequentially (see at least APA; FIG. 2, block 70); and*

*an audio data register unit, registering the decoded audio data packs sequentially (see at least APA; FIG. 2, block 80).*

## Claim 3

The rejection of base claim 1 is incorporated. The combination APA-Mori further discloses *wherein the multitasking unit further comprises:*

*an analysis unit, analyzing the decoded video data packs and the decoded audio data packs from the video data register unit and the audio data register unit to produce an analysis result (see at least APA, FIG. 2; although FIG. 2, Prior Art does not show the registers, the registers are deemed inherent to APA because without these registers there are no means to store data to be processed by a processor);*

*a selection unit, outputting source video data stream or the source audio data stream according to the analysis result (see at least APA, FIG. 2); and*

*an encoding unit, receiving source video data stream or the source audio data stream output from the selection unit (see at least APA, FIG. 2), and decoding thereof into source video data pack or the source audio data pack for integration into the data stream buffer unit (see at least FIG. 2).*

It should be noted that FIG. 2 does not show the details of the function of decoding the video and audio sources into the video pack 70 and audio pack 80 shown in FIG. 2 of Applicant's background, the claimed units (i.e., *analyzing, selection, encoding and decoding units*) are deemed inherent to APA. Without these units, the video and audio input data could not be separated and ordered as shown in FIG. 2 of Applicant's disclosure and Mori's FIG. 25, component 1000.

#### **Claim 4**

The rejection of base claim 1 is incorporated. The combination APA-Mori further discloses *wherein the multitasking unit decodes source video data stream into source video data pack if the number of the decoded video data packs are less than the number of the decoded audio data packs in the virtual playback unit* (see at least APA, FIG. 2; it appears that the combination APA-Mori's playback unit decodes the source video packs whether or not the number of the decoded video data packs are less than the number of the decoded audio data packs).

#### **Claim 5**

The rejection of base claim 1 is incorporated. The combination APA-Mori further discloses *wherein the multitasking unit decodes the source audio data stream into the source audio data pack if the number of the decoded audio data packs are less than the number of*



*the decoded video data packs in the virtual playback unit* (see at least APA, FIG. 2; see comments in Claim 4).

#### Claim 6

The rejection of base claim 1 is incorporated. The combination APA-Mori further discloses *a storage unit writing the multimedia data stream of the data stream buffer unit into a storage medium sequentially* (see at least Mori; FIG. 2, blocks 1200, St45 and disk M).

#### Claim 7

The rejection of base claim 1 is incorporated. The combination APA-Mori does not specifically disclose *wherein the apparatus is a production software*.

It was known at the time of the invention that merely providing an automatic means to replace an activity performed by a device which accomplishes the same result is not sufficient to distinguish over the prior art, *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958). For example, simply coding the steps performed by the components of the apparatus recited in Claim 1 gives one just what one would expect from the components disclosed in the combination APA-Mori. In other words there is no enhancement found in the claimed apparatus being a production software. The claimed apparatus being a production software only provides automating the function(s) of the physical components. The end result is the same as compared to the physical apparatus. A computer program can simply perform the functions of an physical apparatus without the required presence of the physical components. The result is the same.

It would have been obvious to a person of ordinary skill in the art at the time

the invention was made to automate the functions performed by the claimed components with a computer program because this would ensure the synchronization of the decoded audio data with the video data, which is purely known, and an expected result from automation of what is known in the art.

13. Claims 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,054,544 to Tanaka in view of U.S. Patent No. 5,854,873 to Mori et al. ("Mori").

#### Claim 8

Tanaka discloses at least a *method for producing multimedia data stream, comprising the steps of:*

*calculating the playback time of a decoded video data pack (see at least FIGs. 4-5);*

*and a decoded audio data pack (see at least FIGs. 4-5);*

*determining whether the video data register unit and the audio data register unit have overflowed or not (see at least 12:12-20; it is noted that the step of determining when the actually-played-back frame data is larger than the reference frame data in Tanaka is equivalent to the claimed step because if the reference frame data is stored in a register and the determining step found that the data of the actually-played-back frames is larger than the reference frame data – i.e., the actually-played back data would overflow the register unit containing the data of the reference frame if the actually-played back data were to be stored in the unit storing the reference frame data because of the larger size of the actually-played-back frame data);*

*deciding an analysis result according to the number of stored data packs if the video data register unit and the audio data register have not overflowed (see at least 12:8-20);*

*encoding and storing the source video data if the number of the video data packs are less than the number of the audio data packs and encoding the input source video stream for integration into the data stream buffer unit (see at least FIGs. 4-5); and*

*encoding and storing the source audio data into the data stream buffer unit if the number of the audio data packs are less than the number of the video data packs and encoding the input source audio stream for integration (see at least FIGs. 4-5).*

Tanaka does not specifically disclose that the decoded video data packs and audio data packs are respectively *stored in a video data register unit and in a audio data register unit, respectively*. However, register units are deemed inherent to Tanaka because without these temporary storage units, the calculation of playback time difference of decoded video and audio data could not be obtained in order to properly synchronize the video and audio data. Furthermore, as admitted by Applicant at page 6, lines 5-6 of Applicant's disclosure, the step of decoding the video and audio data stored in register units is similar to that performed by a standard multimedia player. Without the register units video and audio data could not be stored for later processing.

Tanaka does not specifically disclose that the encoded source video and audio data are stored in a *data stream buffer unit*. However, in an analogous art, Mori teaches a method and apparatus for system encoding and storing bitstreams for use in an authoring system (see at least 1:9-19), wherein a VOB (Video Object) buffer 1000 temporarily stores the video objects produced by the system encoder 900 (see at least FIGs. 2 and 25).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Mori with the teachings of APA because

the combination would provide an effective authoring system for controlling a multimedia data bitstream to better address advanced user requirements (Mori, 2:37-41).

#### Claim 9

The rejection of base claim 8 is incorporated. The combination APA-Mori further discloses *integrating the source video data pack and the source audio data pack sequentially into a multimedia data stream* (see at least Mori; FIG. 25, stream St35).

#### Claim 10

The rejection of base claim is incorporated. The combination APA-Mori further discloses *wherein the decoded video data pack and the decoded audio data pack are decoded from the multimedia data stream* (see at least Tanaka; FIG. 3, video data channeled from block 3 to block 13 and audio data from block 3 to block 5).

#### Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action

Application/Control Number:  
10/692,989  
Art Unit: 2623

Page 12

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2600 Group receptionist (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



February 12, 2008

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